231 proved its superior adaptability. An interesting point is that, before 1914, Serbia
232 and Croatia exported to Malta large numbers of pigs for fattening, while Yugo-
slavia is today importing Large Whites as breeders from this country. It is now
[131] illegal to use other than pedigree boars for breeding, and the success of the Agricultural Department and the relative enthusiasm of the Maltese farmer in raising pig production standards have made Malta self-sufficient in this respect at least. Local grain and imported beans form the basis of feeding stuffs given by the best farmers. Animal slaughterings now average about 30,000 head per annum.

23 Of the total cattle population of some 6,000 in Malta and 3,000 in Gozo, nearly 30 per cent. are milch cows. This proportion has increased steadily since the first introduction of milch cows in the early years of British occupation. Before
[197] 1800, the indigenous Maltese breed, raised as general purpose stock in normal peasant tradition, alone was of importance. During the nineteenth century, specialised breeds were slowly introduced, a process which culminated in trials with Swiss Brown, Polish and Jersey cattle during the 1920's and '30's. By 1939, the cattle were mainly of mixed blood with the older strains predominating, and those still found are rapidly being displaced because of their low milk yields of some 1 to 1¼ gallons a day. The only surviving registered Maltese bull is to be seen on a farm at Bingemma Gap. In the post-war period, imported Ayrshires, British Friesians and Durham Shorthorns have proved very successful and popular. The Friesian strains in particular are very effective for crossing, important in that most country herds are still of mixed blood. A typical composition was noted in a stockyard on Delimara Peninsula - 13 milk cows and three heifers consisting of pure polled Maltese, Friesians, Friesian/Maltese crosses, Ayrshire/Maltese crosses, together with seven Friesian and crossed Friesian
[239] calves. Store cattle, of which over 3,000 are annually imported for fattening, are of various breeds, and come in the main from within the Mediterranean region.

231 This cattle population, which supplies half of the total production of milk in
234 Malta, and approximately two-thirds in Gozo, as well as over 75 per cent. of the beef consumed, is a very special element in Maltese agriculture. The imported store cattle have but to be fattened for slaughtering. Trustworthy statistics are lacking, but it would seem that over one-half of the imported fodder is consumed for this purpose.

The milch cows are given a maintenance ration of sulla and other leguminous fodders, and a production ration of imported beans, grains and cake. Carob beans and chopped prickly pear are sometimes used, and *oxalis cernua* may also be fed in moderation.

231 This large demand for fodders has so far been met by maintaining at high
234 level the production of leguminous and grain crops. Only in recent years has it
246 become economic to add high protein feeds. For social and health reasons the human consumption of high protein foods, milk in particular, has been encouraged. It has therefore often been suggested that further concentration on production of forage crops is necessary.

It is probable that such a policy would be both uneconomic and impracticable. In the first place, as long as it requires an average of 6 lb. weight of fodder protein to produce 1 lb. weight of animal food protein, then any country with restricted land resources has to look twice at the wastage involved. Such a country, having to import either animal products or vegetable products, or even both as in the case of Malta, has little to gain by specialising in a production technique in which over three-quarters of the crops grown and imported for feed merely go to maintaining livestock in existence. Thirdly, since that land now grazed by sheep and goats is virtually unusable in any other way, they cannot be simply replaced by cattle. More cattle would mean less arable farming of food crops and this would entail either the loss of potential vegetable exports from irrigated land or, more feasibly, the improvement of arable dry-farmed crops, e.g. sorghums in place of barley.

The impracticability of a policy designed vastly to increase forage production may be proved as follows. The growing of perennial fodder crops is out of the

159 423 - 10 field plots in single block of 4 tmien (Rent £2.10.0.), and
- 7 field plots in single block of 2 tmien (Rent £3).
- Grazing ground on Defence Dept., wasteland.

B. Utilisation.

159 241 311 (i) At any one time about half the land - that of the deep-soil terraces - will be under potatoes with a few vegetables, and the remainder under barley and leguminous fodder.

(ii) The arable land tends to be neglected as a result of pre-occupation with livestock. The land is therefore deteriorating and as soil wash reduces soil-depth and water availability, peas and vetches are replacing less hardy crops. The most accessible fields in this hilly region are worked mainly to meet domestic needs.

C. Livestock.

159 231 234 90 goats including 75 breeders and 2 billies.
7 sheep for meat and cheesemaking.
This herd built up in farmers lifetime (c.50 years).

D. Capital.

159 423 (i) No freehold land.

(ii) A freehold village house joint possession of farmer and brother-in-law.

511 426 (iii) Receives C.A.R.E.[24] food gifts but the family standard of living is by no means poor. No debts except on intra-family loan basis.

E. Labour.

159 464 (i) Of the family of 11, two children are employed elsewhere and the remainder give occasional help with the stock and on the fields.

(ii) The fields are inaccessible to powered tools. Hired labour for fieldwork - c.15-20 man days @ 24/- a day including mule and implements.

F. Production and Sales.

159 43 234 (i) Goats milk sales range from February minimum of c.100 lbs. per day to July maximum of 290 lbs. per day. Annual sales of the order of 6,400 galls. @ average price 5/9d per gallon.
Gross income from milk sales c.£1800.
No accurate record of expenditure on purchased feed but total can be estimated as of the order of £500 p.a. Net income probably not more than £800 p.a.

(ii) Manure sold to arable farmers during first half of year with net profit of £18.

(iii) Home produced and consumed food and milk valued at c.10/- a day.

G. Husbandry.

159 23 (i) Livestock feeding of traditional pattern sulla, beans and cake is more carefully regulated in relation to yields than in Case III. Considerable emphasis placed on grazing and on stock exercising.

(ii) Herd suffers fairly severely from abortion and the kids from various diseases - 5 out of 16 in 1956, 4 out of 12 in 1957.
No prophylactic or remedial measures except more careful feeding. Sells sick and old stock for slaughtering.

(iii) Tries to extend period of maximum production by prolonging mating period but prefers to rely on "natural" periodicity rather than on producing off-season high yields. Has high standards for yields and has a good record in local shows for billies and breeders.

H. General.

158 434 An example of a high-class village goats-milk producer.